



PATENT
ATTORNEY DOCKET NO.: 040894-5147-01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
)
Wataru **Matsutani** and Junichi **Kagawa**)
)
U.S. Patent No.: 5,793,793) Group Art Unit: Not Assigned
Issue Date: August 11, 1998)
)
Reissue Application No.: 09/513,215) Examiner: Not Assigned
Filed: February 23, 2000)
)
For: SPARK PLUG)

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

REISSUE DECLARATION BY THE INVENTORS

1. We hereby declare that:
2. My residence, post office address and citizenship are as stated below next to my name.
3. I am employed by the following company: NGK Spark Plug Co., Ltd.
4. The entire title to the patent identified below is vested in said company.

Name of patentees: Wataru **Matsutani** and Junichi **Kagawa**

Patent Number: 5,793,793

Date Patent Issued: August 11, 1998

Title of the Invention: Spark Plug

5. I believe said patentees to be the original, first and joint inventors of the subject matter which is described and claimed in United States Patent No. 5,793,793, granted on August 11, 1998, and for which a reissue patent is sought on the invention entitled: SPARK PLUG, the specification of which

[] is attached hereto.

[x] was filed on February 23, 2000 as reissue application no. 09/513,215,
and was amended on _____.

6. I hereby claim foreign priority benefits under 35 U.S.C. § 119 on the basis of Japanese application nos. Hei 8-188347 and Hei 8-335119, filed June 28, 1996 and November 28, 1996, respectively. Certified copies were filed in the application on which the original patent was granted.
7. I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above and any amendment submitted concurrently herewith.
8. I acknowledge the duty to disclose information which is material to patentability as defined in 37 C.F.R. §1.56.
9. I verily believe the original patent to be wholly or partly inoperative or invalid by reason of (check all that apply)
- ☒ the patentee claiming more or less than the patentee had the right to claim in the patent.
- ☐ a defective specification or drawing.
10. At least one error upon which this reissue application is based is described as follows:

Specifically, one error in the '793 patent is that the '793 patent did not include the following claim:

27. A spark plug comprising a central electrode; an insulator provided exterior to the central electrode; a main metallic shell provided exterior to the insulator; a ground electrode having one end coupled to the main metallic shell and another end facing the central electrode; and an igniting portion secured to at least one of the central electrode and the ground electrode and forming a spark plug gap; wherein a chip including an Ir-based alloy including Rh in an amount ranging from 10wt% to 25wt% is placed on a tip end face of the central electrode comprising Ni alloy; and an annular welding portion laid across the chip and the central electrode is formed so as to form the igniting portion including an Ir-based alloy including Rh in an amount ranging from 10wt% to 25wt%.

This claim essentially corresponds to original claim 1 of the '793 patent, but changes the claim as follows:

the original phrase "coupled to one end of the main metallic shell and having" is replaced with the new phrase --having one end coupled to the main metallic shell and--; and

the original phrase "wherein the igniting portion includes an Ir-based alloy including Rh in an amount ranging from over 10% to less than 30% wt%" is replaced with --wherein a chip including an Ir-based alloy including Rh in an amount ranging from 10wt% to 25wt% is placed on a tip end face of the central electrode comprising Ni alloy; and

an annular welding portion laid across the chip and the central electrode is formed so as to form the igniting portion including an Ir-based alloy including Rh in an amount ranging from 10wt% to 25wt%--.

An error resided in that patentees were claiming less than they were entitled to in the '793 patent by including the original phrases and omitting the new phrases in claim 1.

11. All errors corrected in this reissue application arose without any deceptive intention on the part of the applicant.
12. I hereby appoint the registered practitioners of Morgan, Lewis & Bockius LLP included in the Customer Number provided below to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith.

Please direct all correspondence to: **Customer Number: 009629**

13. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this declaration is directed.

Date: April 20, 2000

By: 
Wataru MATSUTANI

Residence: Nagoya-shi, Aichi, Japan
Citizenship: Japan
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Nagoya-shi, Aichi, Japan

Date: April 20, 2000

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Junichi KAGAWA

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Citizenship: Japan
Post Office Address: c/o NGK Spark Plug Co., Ltd.
14-18 Takatsuji-cho, Mizuho-ku
Nagoya-shi, Aichi, Japan



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| In re Application of: |) | |
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| Wataru Matsutani and Junichi Kagawa |) | |
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| U.S. Patent No.: 5,793,793 |) | Group Art Unit: Not Assigned |
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| Filed: February 23, 2000 |) | |
| |) | |
| For: SPARK PLUG |) | |

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

REISSUE DECLARATION BY THE ASSIGNEE

1. I hereby declare that:
2. My residence, post office address and citizenship are as stated below next to my name.
3. I am authorized to act on behalf of the following company: NGK Spark Plug Co., Ltd.
4. The entire title to the patent identified below is vested in said company.

| | |
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| Name of Patentees: | Wataru MATSUTANI and Junichi KAGAWA |
| Patent Number: | 5,793,793 |
| Date Patent Issued: | August 11, 1998 |
| Title of the Invention: | SPARK PLUG |

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Dated: April 27, 2000

By: 
Shigenobu Kanagawa
Name of Person Signing
President
Title: Chief Executive Officer

NGK Spark Plug Co., Ltd.
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